

**COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
South Central Regional Office**

STATEMENT OF LEGAL AND FACTUAL BASIS

ArborTech Forest Products, Inc.
500 Dearing Ave., Blackstone (Nottoway County) Virginia
Permit No. SCRO31039

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, ArborTech Forest Products, Inc. has applied for a Title V Operating Permit for its Blackstone facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: _____ August 17, 2006

Air Permit Manager: _____ August 17, 2006

Regional Permit Manager: _____ August 17, 2006

1. GENERAL

FACILITY INFORMATION

Permittee

ArborTech Forest Products, Inc.
500 Dearing Ave.
Blackstone, VA 23824

Facility

ArborTech Forest Products, Inc.
500 Dearing Ave.
Blackstone, VA 23824

AIRS ID No. 51-135-0037

SOURCE DESCRIPTION

SIC Code: 2421 – Dimensional lumber manufacturing facility (pine lumber) and by-products (ie., bark, chips, sawdust, and shavings).

The facility is a Title V major source of Volatile Organic Compounds (VOC) and methanol. This source is located in an attainment area for all pollutants, and is a PSD minor source. The facility was previously permitted under a Minor NSR Permit issued on 8/27/02 as amended on March 3, 2004. The March 3, 2004 permit is superseded by the permit issued on August 17, 2006. The significant permit amendment, dated August 17, 2006, removes the fuel consumption limit for the two 28.7 MMBtu/hr (heat input) wood waste-fired boilers (B1, B2) and re-assess the emissions and applicable requirements for the kilns (K1, K2, K3). The methanol emissions from the kilns, a currently regulated hazardous air pollutant (HAP), have been re-evaluated based on emissions data from National Council for Air and Stream Improvement (NCASI) Bulletin No. 845. The revised potential to emit (PTE) for methanol has been calculated to be 9.2 tons/yr and total HAPs have been calculated to be 18.2 tons/yr. Therefore, this facility is not a major source of HAPs per 40 CFR 63.2, and is not subject to the requirements of 40 CFR 63 Subpart DDDDD, National Emission Standards for Hazardous Air Pollutant (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters and 40 CFR 63 Subpart DDDD, NESHAP for Plywood and Composite Wood Products.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, was conducted on August 9, 2005. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description (Note 4)	Size/Rated Capacity (Notes 1 & 2)	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
B1	B1-1	Hurst Boiler Wood-waste fired boiler Model m-4000-WWF, 2000	28.7 MMBtu/hr	Hurst Boiler multicyclone	B1A	PM	August 17, 2006
B2	B2-1	Hurst Boiler Wood-waste fired boiler Model m-4000-WWF, June 28, 2005.	28.7 MMBtu/hr	Hurst Boiler multicyclone	B2A	PM	August 17, 2006
Process A							
K1	K1 – 1 thru 10 (Note 3)	Wellons 54 foot dual track dry (lumber) kiln, 2001	4.37 MBf/hr	---	---	---	August 17, 2006
K2	K2 – 1 thru 10	Wellons 54 foot dual track dry (lumber) kiln, 2001	4.37 MBf/hr	---	---	---	August 17, 2006
K3	K3 – 1 thru 10	Wellons 86 foot dual track dry (lumber) kiln, 2002	6.96 MBf/hr	---	---	---	August 17, 2006
Process B							
P1	P1-1	Howell Metal planer system, 2001	50 MBf/hr	Howell Metal cyclone	P1A	PM	August 17, 2006

Notes:

1. The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.
2. MBf / hr = thousand board feet per hour
3. Each kiln has 10 vents. Alternately, five act as vents and five act as intakes.
4. Date = installed date unless otherwise noted.

EMISSIONS INVENTORY

A copy of the 2005 annual emission update is attached. (See Attachment #1)

Emissions are summarized in the following tables.

2005 Actual Emissions

	Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO ₂	PM ₁₀	NO _x
Total	133.2	69.6	11.1	41.7	32.8

2005 Facility Hazardous Air Pollutant Emissions

Pollutant	Hazardous Air Pollutant Emission in Tons/Yr
Methanol	8.2

2. EMISSION UNIT APPLICABLE REQUIREMENTS**2.1 Wood-waste boiler B1 and B2**

Boiler B1 is a 28.7 MMBtu/hr, wood-waste fired unit for which construction and operation was authorized in the NSR permit dated June 30, 2000. The construction of Boiler B2 was authorized in the permit dated August 27, 2002. Boiler B2 is a 28.7 MMBtu/hr, wood-waste fired unit that began construction on June 28, 2005 and commenced operation on September 14, 2005. This facility is not a major HAPs source as defined in 40 CFR 63.2 and is not subject to the provisions of 40 CFR 63 Subpart DDDDD, National Emission Standards for Hazardous Air Pollutant (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters per 40 CFR 63.7485.

Limits

The limits for boilers B1 and B2 are carried forward from the August 17, 2006 into the Title V permit:

1. A multicyclone will control PM emissions.
2. The approved waste-wood fuel is specified.
3. The allowable consumption rate for waste-wood fuel is limited.
4. Boiler and air pollution control equipment operating and training procedures are specified.
5. The allowable emission rates and opacity are limited.
6. The applicability of NSPS Subpart Dc is specified. (Note: Due to the capacity of boilers B1 and B2, the only applicable standards from the subpart are notification and recordkeeping requirements.)
7. The permit dated August 17, 2006 does not limit fuel consumption of boilers B1 and B2.

Monitoring

The monitoring requirements for boilers B1 and B2 are carried forward from the 2006 NSR permit into the Title V permit:

1. The structural integrity of the multicyclone (Ref. B1A, B2A) is confirmed annually.
2. Periodic monitoring requirements for opacity from boilers B and B2 are based on

observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required, or VEE's as determined by EPA Method 9 are required to demonstrate compliance with the applicable opacity limit.

Recordkeeping

The recordkeeping requirements for boilers B1 and B2 are carried forward from the 2006 NSR permit into the Title V permit:

1. Records of fuel usage are required.
2. Emission calculation records are required.

In addition, visual emission logs are required to verify compliance with the periodic monitoring requirements.

Testing

Testing / monitoring ports are required upon request.

Reporting

The "Recordkeeping and Reporting" requirements of the Title V General Conditions apply to boilers B1 and B2.

2.2 Process Equipment

2.2.1 Dry (lumber) kilns K1, K2, and K3

Construction and operation of the dry (lumber) kilns K1, K2, and K3 are currently authorized in the NSR permit dated August 17, 2006. The permittee has amended the methanol emissions calculations dated August 6, 2002. The permitted claims that the average methanol average emission factors from the two full-scale and the four small-scale tests found in Tables 9.5 and 9.6, respectively, of NCASI Technical Bulletin 845 accurately represents the emissions from their kilns (K1, K2, K3). The practice of using an average of several tests, rather than an isolated value from a series of tests, is the approach used in AP42 to determine emission factors. Also, in the February 16, 2006 revision to 40 CFR 63 Subpart DDDD, the EPA recognizes that some of the operators of dry lumber kilns may recalculate the potential to emit (PTE) using emission factors from NCASI'S Bulletin 845, and demonstrate that they were not a major source of HAPS (see Attachment 3). Therefore, this facility is not and has not been a major HAPS source as defined in 40 CFR 63.2, and is not subject to the provisions of 40 CFR 63 Subpart DDDD, National Emission Standards for Hazardous Air Pollutant (NESHAP) for Plywood and Composite Wood Products per 40 CFR 63.2231(b).

Limits

The following limits for the dry (lumber) kilns K1, K2, and K3 are carried forward from the August 17, 2006 permit into the Title V permit:

1. The allowable throughput of wood is limited.
2. The allowable emission rates are limited.

In addition, opacity is limited in accordance with the new source standard for visible emissions.

Monitoring

Periodic monitoring requirements for opacity from the dry (lumber) kilns K1, K2, and K3 are based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required, or VEE's as determined by

EPA Method 9 are required to demonstrate compliance with the applicable opacity limit.

Recordkeeping

The following recordkeeping requirements for the dry (lumber) kilns K1, K2, and K3 are carried forward from the 2006 permit into the Title V permit:

1. Records of wood throughput are required.
2. Emission calculation records are required.

In addition, visual emission logs are required to verify compliance with the periodic monitoring requirements.

Testing

Testing / monitoring ports are required upon request.

Reporting for kilns K1 thru K3

The "Recordkeeping and Reporting" requirements of the Title V General Conditions apply to the dry (lumber) kilns K1, K2, and K3.

2.2.2 Planer P1

Construction and operation of planer P1 is currently authorized in the NSR permit dated August 17, 2006.

Limits

The following limits for planer P1 are carried forward from the August 17, 2006 into the Title V permit:

1. A cyclone will control PM emissions.
2. The allowable throughput of wood is limited.
3. The allowable emission rates and opacity are limited.

Monitoring

The following monitoring requirements for boiler P1 are included in the Title V permit:

1. The structural integrity of the cyclone is confirmed annually.
2. Periodic monitoring requirements for opacity from planer P1 are based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required, or VEE's as determined by EPA Method 9 are required to demonstrate compliance with the applicable opacity limit

Recordkeeping

The following recordkeeping requirements for planer P1 are carried forward from the August 17, 2006 into the Title V permit:

1. Records of wood throughput are required.
2. Emission calculation records are required.

In addition, visual emission logs are required to verify compliance with the periodic monitoring requirements.

Testing

Testing / monitoring ports are required upon request.

Reporting

The "Recordkeeping and Reporting" requirements of the Title V General Conditions apply to planer P1.

3 Facility Wide

The following applicable requirements for the facility are carried forward from the August 17, 2006 into the Title V permit:

1. The department may require the facility to reduce operation as necessary to avoid violating a primary ambient air quality standard.
2. Minimum maintenance / operation procedures are specified.
3. Testing / monitoring ports are required upon request.

3.1 Some general statements about MACT applicability

1. As discussed in the engineering review of the 2006 NSR permit (see Attachment #3), this facility is not a major HAP source and ArborTech's boilers and kilns are not subject to any current MACT subpart.
2. Wood planing is not a listed category in Section 112 (c) of the CAA, and therefore the planer is not subject to a MACT.

3.2 Compliance Assurance Monitoring (CAM)

Per Chapter 9 of current Title V manual, CAM applies to an emission unit if (1) that unit has the potential to emit (in the absence of add-on controls) a regulated pollutant in an amount that exceeds its major source threshold, (2) is subject to an emission limitation for that pollutant, and (3) uses a control device to achieve compliance with the emission limitation.

The uncontrolled emission rate for PM (ie., the only pollutant for which add-on control is required) from each solid fuel Boiler (Ref. B1 and B2) is less than the major source threshold of 100 tons / year. Neither, Boiler B3, nor kilns K1, K2, and K3 employ add-on emission controls. Therefore, none of the emissions units B1, B3, K1, K2, or K3 is subject to CAM.

Based on the emission calculations performed by SCRO in support of the 2002 NSR permit, the planer P1 would be subject to CAM. However, both Chapter 9 of the Title V manual and 40 CFR 64, Compliance Assurance Monitoring, subdivide applicable emissions units into "Large" units (ie., those whose post-control emissions are greater than the major source threshold) and "Other" units (ie., those units whose pre-control emissions are greater than the major source threshold but whose post-control emissions are less than this threshold). Per both Chapter 9 of the Title V manual and 40 CFR 64, "other" emissions units are NOT subject to CAM until the first renewal of the Title V permit. (See 40 CFR 64.5 (b)) Planer P1 is an "other" unit and so is not subject to CAM for this current Title V permit action. (It should be noted that the 2002 era calculations were conservative and may well warrant recalculation when the application for permit renewal is received to confirm that the pre-control emissions are still considered "major" based on the then current, best available data.)

4. GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

Condition B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §§2.1-20.01:2 and §§10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement NO. 3-2001".

Condition F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

Condition J. Permit Modification

This general condition cites the sections that follow:

9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources

9 VAC 5-80-190. Changes to Permits.

9 VAC 5-80-260. Enforcement.

9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources

9 VAC 5-80-1790. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas

Condition T. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

5. INSIGNIFICANT EMISSION UNITS

Insignificant emission units are listed in Condition VII of the Title V permit.

6. CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

7. PUBLIC PARTICIPATION

The draft and proposed permits will be placed on public notice in the Blackstone COURIER-RECORD on June 22, 2006. The public comment period ended on August 16, 2006 with no comments received by this office.